In the Specification:

Please insert the following paragraph as the first paragraph on page 1, after the title:

-- This is a divisional application of U.S. Patent Application No. 09/528,815 filed March 20, 2000; which claims priority to Japanese Patent Application No. 11-113997 filed March 18, 1999; Japanese Patent Application No. 11-209627 filed June 21, 1999; and Japanese Patent Application No. 11-209628 filed June 21, 1999; and which is incorporated herein in its entirety. --

Please replace the paragraph beginning at page 5, line 22, with the following rewritten paragraph:

-- The second feature of the present invention lies in an optical disk drive having an optical assembly, a disk cartridge guide member for guiding a disk cartridge to a predetermined position within the optical disk drive, a disk cartridge lock mechanism and a drive-side-connector. Here, the optical assembly has optical elements necessary for a generation and a detection of a light beam used to record and reproduce information. The optical assembly further has a mechanism for adjusting a position of the light beam. The disk cartridge lock mechanism holds the disk cartridge at a predetermined position within the optical disk drive when the disk cartridge is used. And the disk cartridge lock mechanism ejects the disk cartridge outside the optical disk drive, when it is not used. The drive-side-connector is so configured that it will be fitted into and electrically connected to a cartridge-side-connector on the disk cartridge. --

Please replace the paragraph beginning at page 6, line 8, with the following rewritten paragraph:

-- The third feature of the present invention lies in an optical library comprising an accommodation rack for accommodating a plurality of disk cartridges, an optical assembly, a moving mechanism, a disk cartridge lock

mechanism, and a library-side-connector. The optical assembly has optical elements necessary for a generation and a detection of a light beam used to record and reproduce information. And the optical assembly has a mechanism for adjusting a position of the light beam. The moving mechanism moves and holds the optical assembly to and at a position corresponding to any of disk cartridges. The disk cartridge lock mechanism holds the disk cartridge at a predetermined position within the optical library, when the disk cartridge is used. And, the disk cartridge lock mechanism ejects the disk cartridge outside the optical library, when it is not used. The library-side-connector is so configured that it will be fitted into and electrically connected to a cartridge-side-connector on the disk cartridge. --

Please replace the paragraph beginning at page 7, line 22, and extending to page 8, with the following rewritten paragraph:

-- The fifth feature of the present invention lies in an optical storage system comprising a plurality of disk cartridges containing the first and second disk cartridges having the structure described in the first feature and the optical disk drive described in the second feature. For example, the first disk cartridge has a first frame, a first optical disk mounted in this first frame, a first spindle motor for holding this first optical disk rotatable, a first optical head assembly, a first cartridge-side-connector and a first optical window mounted on the first frame. On the other hand, the second disk cartridge has a second frame, a second optical disk mounted in this second frame, a second spindle motor for holding this second optical disk rotatable, a second optical head assembly, a second cartridge-side-connector and a second optical window which is mounted on the second frame. Here, the first and second frames have hermetically sealed structures, respectively. The first and second optical head assemblies have optical heads which can access surface of the first and second optical disks and seeking mechanisms for positioning the respective optical heads at specified tracks on the first and second optical disks, respectively. And, as described in the second feature, the optical disk drive has an optical assembly, first and second disk

cartridge guide members for guiding the first and second disk cartridges to predetermined positions within the optical disk drive, first and second disk cartridge lock mechanisms, first and second drive-side connectors and an optical path switching mechanism for selectively leading the light beam to the first or second disk cartridge. The optical assembly has optical elements necessary for a generation and a detection of a light beam used to record and reproduce information and a mechanism for adjusting positions of the light beam. The first and second disk cartridge lock mechanisms hold the first and second disk cartridges at predetermined positions within the optical disk drive, when the first and second disk cartridges are used. And the first and second disk cartridge lock mechanisms eject the first and second disk cartridges outside the optical disk drive when they are not used, respectively. The first and second cartridge side connectors are configured such that they electrically connect to first and second drive-side-connectors, respectively. --

Please replace the paragraph beginning at page 17, line 14, and extending to page 18, with the following rewritten paragraph:

-- In the following explanation, an optical disk drive 30 is exemplified which can accommodate therein two disk cartridges la, lb. However, it is evident that the optical disk drive 30 according to the first embodiment can be applied to the structure in which three or more disk cartridges la, lb, ... can be accommodated. That is, the optical disk drive 30 according to the first embodiment is provided with: an optical assembly 50 for accommodating optical elements necessary for generation and detection of a light beam used to record and reproduce information, and a mechanism to adjust a position of the light beam; first disk cartridge guide members 34Aa, 34Ba for guiding a first disk cartridge la to a predetermined position within the optical disk drive 30; second disk cartridge guide members 34Ab, 34Bb for guiding a second disk cartridge lb to a predetermined position within the optical disk drive 30; first disk cartridge lock mechanisms (39a, 45a) which when the first disk cartridge la is used, holds it at a predetermined position within the optical disk drive 30, and when not

used, ejects it outside the optical disk drive 30; second disk cartridge lock mechanisms (39b, 45b) which when the second disk cartridge lb is used, holds it at a predetermined position within the optical disk drive 30, and when it is not used, ejects it outside the optical disk drive 30; a first drive-side-connector 35a which is fitted into and electrically connected to a cartridge-side-connector on the first disk cartridge 1a; a second drive-side-connector 35b which is fitted into and electrically connected to the cartridge-side-connector on the second disk cartridge 1b; and an optical path switching mechanism 51 for selectively guiding the light beam to the first disk cartridge la or the second disk cartridge 1b. Here, the optical assembly 50 is composed of, for example, a semiconductor laser diode for generating a light beam, a beam splitter for splitting the light beam, a collimator lens for modifying the shape of the light beam; a photo diode for detecting the deviation of a position of a light beam returning from the surface of the optical disk; a fine actuator for driving a corresponding optical element in order to finely adjust a position of a light beam emitted from the optical assembly 50; and the like. --

Please replace the paragraph beginning at page 18, line 35, and extending to page 19, with the following rewritten paragraph:

-- An arm shaft 40 rotatably supports a first lock arm 39a. A tip is hook-shaped which is inserted into the capsular notch 18 of the first lock arm 39a. The other end of the first lock arm 39a is urged to one direction by a spring 41, and stopped at a predetermined position by a stopper 42. Moreover, it is sucked by an electromagnetic solenoid 43 to a direction opposite to the urge direction of the spring 41. The electromagnetic solenoid 43 is fixed to a support plate 44 mounted on a base plate 31 of the optical disk drive 30. When the first disk cartridge la is inserted, the first lock arm 39a is guided to an inclination portion of the hook-shaped portion of its tip, and rotated oppositely to the urge direction of the spring 41. When the insertion operation is ended, the hook-shaped portion is fitted into the capsular notch 18, and it returns back to the original position. A first positioning pin 45a is fixed to a support plate 46 mounted on the base plate 31

of the optical disk drive 30. When the first disk cartridge la is inserted, the first positioning pin 45a is engaged with the positioning hole 19 formed on the bottom cover 1A of the frame to accordingly align the first disk cartridge la with a predetermined position. An ejector 47 is slidably supported around the first positioning pin 45a, and urged by a spring 48 mounted between the support plate 46 and the ejector 47. When the first disk cartridge la is ejected outside the optical disk drive 30, the electromagnetic solenoid 43 is energized to thereby suck the end of the first lock arm 39a. The first lock arm 39a is rotated up to a position of "A" shown in Fig.6 to accordingly release the hook-shaped portion at the other end from the capsular notch 18. The first disk cartridge la released from the lock state is pushed outside the optical disk drive 30 through the ejector 47 by the urge force of the spring 48. --

Please replace the paragraph beginning at page 19, line 27, and extending to page 20, with the following rewritten paragraph:

-- Although inserted configuration are not shown for the second disk cartridge lb, substantially similar explanation can be hold for the case when second disk cartridge 1b is inserted into the optical disk drive 30. That is, the arm shaft 40 rotatably supports a second lock arm 39b (See Fig.5). A tip is hook-shaped which is inserted into the capsular notch 18. When the second disk cartridge 1b is inserted, the second lock arm 39b is guided to an inclination portion of the hook-shaped portion of its tip, and rotated oppositely to the urge direction of the spring. When the insertion operation is ended, the hook-shaped portion is fitted into the capsular notch 18, and it returns back to the original position. A second positioning pin 45b is fixed to the same support plate 46 mounted on the base plate 31 of the optical disk drive 30. When the second disk cartridge lb is inserted, the second positioning pin 45b is engaged with the positioning hole 19 formed on the bottom cover 1A of the frame to accordingly position the second disk cartridge lb at a predetermined position. Although not shown, an ejector having the same structure shown in Fig. 6 is also slidably supported around the second positioning pin 45b, and

urged by a spring mounted between the support plate 46 and the ejector. When the second disk cartridge lb is ejected outside the optical disk drive 30, the electromagnetic solenoid is energized to thereby suck the end of the second lock arm 39b so that the hook-shaped portion of the other end is released from the capsular notch 18. The second disk cartridge lb released. from the lock state is pushed outside the optical disk drive 30 through the ejector by the urge force of the spring. --

Please replace the paragraph beginning at page 23, line 16 and extending to page 24, with the following rewritten paragraph:

-- Fig.11 is a perspective view showing the configuration of the optical library 90 according to the second embodiment, and shows a state that a top cover (not shown) of the optical library 90 is detached. That is, the optical library 90 has the plurality, of accommodation racks 69 for accommodating a plurality of disk cartridges la, ..., 1j-1, 1j; an optical assembly 50; moving mechanisms (61, 62, 63 and 63A) for moving and holding this optical assembly 50 to and in a position corresponding to any disk cartridge; a disk cartridge lock mechanism; and library-side-connectors 35a, ..., 35j-1, 35j which are fitted into and electrically connected to respective cartridge-side-connectors of the plurality of disk cartridges la, ..., lj-1, 1j. The optical assembly 50 has optical elements necessary for generation and detection of a light beam used to record and reproduce information. The optical assembly 50 further has a mechanism for adjusting a position of the 30 light beam. The disk cartridge lock mechanism holds the disk cartridge at a predetermined position within the optical library 90 when the disk cartridge is used. And the disk cartridge lock mechanism ejects the disk cartridge outside the optical library 90, when it is not used. The cartridge accommodation box 70 is guided by a couple of guide members 52 mounted on both inner sides of a base plate 31. And the cartridge accommodation box 70 is led to a predetermined position within the optical library 90. --

Please replace the paragraph beginning at page 24, line 2, with the following rewritten paragraph:

-- Similarly to the first embodiment, the disk cartridge lock mechanism of the optical library 90 according to the second embodiment is composed of: an alignment mechanism for accurately leading the disk cartridges to the predetermined position in the optical library 90; a fixing mechanism for fixing the disk cartridge into the optical library 90; a releasing mechanism; and an ejecting mechanism for ejecting the disk cartridge outside the optical library 90 and the like. The alignment mechanism is composed of the outer circumference of the frame of the cartridge and a pin 45 mounted within the optical library 90. That is, the a pin 45 is engaged with a positioning hole formed in a part of the frame of the cartridge, when the plurality of disk cartridges la, ..., lj-1, lj are accommodated within the optical library 90. The fixing mechanism is composed of a hook-shaped lock arm 39 and a hook-shaped portion formed in the outer circumference of the frame or in a part of the frame. That is, the hook-shaped lock arm 39, urged by a spring, is fitted into the hook-shaped portion formed in the outer circumference of the frame or in a part of the frame. The releasing mechanism releases the fixing mechanism by using an electromagnetic solenoid or the like, when the disk cartridge is commanded to be ejected outside the optical library 90; and an urging mechanism constituted by an elastic member of a spring for urging so as to eject the disk cartridge outside the optical library 90 and the like. The ejecting mechanism is constituted by an elastic member of a spring so that it can eject the disk cartridge outside the optical library 90 and the like. --

Please replace the paragraph beginning at page 24, line 28, and extending to page 25, with the following rewritten paragraph:

-- Or, the disk cartridge lock mechanism may have an alignment mechanism for accurately leading the cartridge accommodation box 70 to a predetermined position in the optical library 90. The alignment mechanism is accomplished with the pin 45 mounted within the optical library 90 and a

positioning hole 19 formed in a part of the cartridge accommodation box 70. Namely the pin 45 is engaged with the positioning hole 19, when the cartridge accommodation box 70 is accommodated in the optical library 90. The disk cartridge lock mechanism may further have a fixing mechanism for fixing the cartridge accommodation box 70 within the optical library 90, a releasing mechanism and a ejecting mechanism configured to eject the cartridge accommodation box 70 outside the optical library 90. The fixing mechanism fixes the cartridge accommodation box 70 within the optical library 90 by using the hook-shaped lock arm 39 and a hook-shaped portion 18 formed in a part of the cartridge accommodation box 70 as shown in Fig. 11. That is, urged by the spring, the hook-shaped lock arm 39 is engaged with the hook-shaped portion 18 formed in the cartridge 10 accommodation box 70. The releasing mechanism releases this fixing mechanism by using the electromagnetic solenoid or the like, when the disk cartridge accommodation box 70 is commanded to be ejected outside the optical library 90. The ejecting mechanism may be made of an elastic member such as a spring. --

Please replace the paragraph beginning at page 29, line 19, and extending to page 30, with the following rewritten paragraph:

-- Fig.16 is a partially cross sectional view to explain the actions of the disk cartridge lock mechanism and the connectors. When the insertion of the disk cartridge 1 into the optical disk drive 30 is completed, the drive -side - connector 35 within the optical disk drive 30 is fitted into the cartridge -side - connector 17, mounted in the bottom cover 1A of the frame. Accordingly, respective contacts 17A, 35A are in contact with each other to thereby establish the electrical connection. The drive-side-connector 35 is slidably supported through sliding shafts 36A, 36B, and the sliding shafts 36A, 36B are attached to a support plate 37 mounted on the base plate 31 of the optical disk drive 30. In order to smooth the engaging operation between the connectors, proper play is provided in the sliding portions of the drive-side-connector 35 and the sliding shafts 36A, 36B. Moreover, in order to absorb the shock caused by the insertion

of the disk cartridge 1, dampers 38A, 38B made of elastic material are mounted between the drive-side-connector 35 and the support plate 37. In this way, in order to reduce the shock or the mechanical abrasion caused by the insertion of the disk cartridge 1, it is desirable that the drive-side-connector 35 within the optical disk drive 30 connected to the cartridge -side -connector 17, is held by a holding member under a certain free degree. An arm shaft 40 rotatably supports a lock arm 39. A tip on the side of the disk cartridge 1 is hook-shaped. The other end is urged to one direction by a spring 41, and stopped at a predetermined position by a stopper 42. Moreover, it is sucked by an electromagnetic solenoid 43 to a direction opposite to the urge direction of the spring 41. The electromagnetic solenoid 43 is fixed to a support plate 44 mounted on the base plate 31 of the 10 optical disk drive 30. When the disk cartridge 1 is inserted, the lock arm 39 is guided to an inclination portion of the hook-shaped portion of its tip, and rotated oppositely to the urge direction of the spring 41. When the insertion operation is ended, the hook-shaped portion is fitted into the capsular notch 18, and it returns back to the original position. The positioning pins 45a, 45b are fixed to a support plate 46 integrated with the frame of the optical assembly 50. When the disk cartridge 1 is inserted, the positioning pins 45a, 45b are engaged with a part of the guide members 5A, 5B for the optical head assembly 5, the tips of the guide members 5A, 5B are exposed outside the disk cartridge 1, and guides the disk cartridge 1 to a predetermined position, and then sets its position. Ejectors 47 are slidably supported around the positioning pins 45a, 45B, and similarly urged by springs 48 mounted in the positioning pins 45A, 45B. When the disk cartridge 1 is ejected outside the optical disk drive 30, the electromagnetic solenoid 43 is energized to thereby suck the end of the lock arm 39. The lock arm 39 is rotated by a predetermined angle to accordingly release the hook-shaped portion at the other end, from the capsular notch 18. The disk cartridge 1 released from the lock state is pushed outside the optical disk drive 30 through the ejectors 47 by the urge force of the springs 48. --